

In This Week's Edition

FEATURE

Steptoe & Johnson: Meeting Minimum Standards Doesn't Insulate Pipeline Operators From Liability 1

INSIDE LOOK AT PROCESSING

Barclays Capital: Natural Gas Prices Have Likely Bottomed Out 1

Bayer CEO Confirms Discussions For Ethane Cracker Site In WV 2

Industry-Watchers: Utica Is The Next Great American Play 2

Estimates For GHG Emissions From Shale Production 'Not Credible' 3

NJ Governor Vetoes Fracing Ban 4

NEWS & TRENDS

Inergy Midstream Files For IPO 4

Atlas, DCP Sign Long-Term NGL Agreements 4

Planned Maintenance Of Qatargas LNG Trains Increase European Gas Prices 6

SK Global To Build \$2.4B Petrochemical Plant In Singapore 7

Encana Begins Process To Divest Producing Assets In Fort Worth Basin 7

Reliance, BP Form JV To Source, Market Gas In India 7

UBS Names Pierce To Head Midstream, MLP Investment Segment 8

PIPELINES & TECHNOLOGY

FEIS Affirms Environmental Integrity Of Keystone XL Project 8

Plains Midstream Canada Receives Approval To Restart Rainbow Pipeline 9

PHMSA Considering Changes To Pipeline Regulations 9

NGL PRICES

Conway Ethane Falls To Lowest Price In Nearly A Year 9

FRAC SPREAD

Conway Ethane, Isobutane Lone Margins To Fall For Second Straight Week 10

SNAPSHOT

Texas Gas Transmission Delivers Gas From Gulf, Fayetteville Shale Into Midwest, Northeast 11

FEATURE

Steptoe & Johnson: Meeting Minimum Standards Doesn't Insulate Pipeline Operators From Liability

As operators add more pipeline capacity out of the Marcellus and Utica shales, the importance of maintaining the safety of these pipelines is also increasing because of the potential for lawsuits in these plays. Already hydraulic fracturing and GHG emissions, along with other activities and processes related to the production and transportation of gas and liquids out of these plays, have generated litigation against the industry.

One of the most important tasks that a pipeline operator can do to prevent accidents and future litigation is to exceed minimum federal standards, according to Norrie Price, managing member of Steptoe & Johnson's Huntington, W. Va., office.

"Just because you're in compliance with federal standards doesn't necessarily mean that you're doing enough, and it doesn't in-



insulate you from liability in the event that an accident happens," she said during the law firm's recent webinar, "Pipeline Safety in the Utica & Marcellus Shale."

In the case of an explosion on an El Paso Corp. natural gas pipeline in Carlsbad, N.M., in August 2000, due to internal corrosion, it was determined that the company had been in compliance with the minimum federal (continued on page 5)

INSIDE LOOK AT PROCESSING

Barclays Capital: Natural Gas Prices Have Likely Bottomed Out

An uncertain economic outlook has resulted in natural gas prices falling below \$4 per million Btu (MMBtu) in various North American markets for much of the past month. However, it is likely that these prices represent the floor for how low prices can drop, according to Barclays Capital.

"Gas prices have been rattling around what we believe is their floor. This floor has been created by power sector demand that accelerates when gas prices fall, working off surplus supply and rebalancing the market. Although this dynamic may not be transparent or well understood, we believe it is strong enough this year to keep prices from falling far below \$4/MMBtu for any sustained period," Michael Zenker, managing director at Barclays Capital, said in the firm's *Natural Gas Weekly Kaleidoscope* for the week of Aug. 30.

He noted that there are several floors to natural gas prices: the cost floor, which is the all-in cost of production; the demand floor, which increases when gas prices drop to the point of being competitive with coal prices; and the floor, which is hit when prices fall below operating costs.

Zenker said that the cost floor is fictional because it states that producers stop drilling when they are not covering long-run marginal costs. However, producers have several incentives to continue drilling even when prices fall below these marginal costs. The biggest incentive is drilling to maintain leases along with contract fulfillments.

"Perhaps the ultimate floor is when gas prices fall below operating costs. Evidence of producer shut-ins during the sub-\$3/MMBtu pricing of 2009 is sketchy, but suggests prices would need to durably slide (continued on page 6)

Bayer CEO Confirms Discussions For Ethane Cracker Site In WV

Greg Babe, chief executive of Bayer Corp., told the chemical and energy newsletter *ICIS* that the company has received inquiries from other companies interested in building an ethane cracker at either its Institute or New Martinsville, West Virginia sites. “Multiple players are interested in the idea and our sites,” he said.

The company has 460 acres of land at the Institute Industrial Park and more than 1,000 acres in New Martinsville along the Ohio River that could serve as ideal locations to crack ethane produced from the

Marcellus shale. The sites are also close to several petrochemical companies.

“I’m incredibly optimistic. Bayer has been very aggressive in trying to help us secure a cracker in West Virginia. A decision is going to be made in a matter of months,” Keith Burdette, the state’s Secretary of Commerce, told *The Charleston (WV) Gazette*.

Earlier this year, Royal Dutch Shell announced plans to build a world-scale ethylene cracker in the Appalachian region. “Building an ethane-fed cracker in

Appalachia would unlock significant gas production in the Marcellus region by providing a local outlet for the ethane,” said Ben van Beurden, Shell executive vice president chemicals, at the time of the announcement. “This fits well with our strategy to strengthen our chemicals feedstock advantage and would be another step in growing our chemicals business to meet the increasing demand for petrochemicals.”

Industry-Watchers: Utica Is The Next Great American Play

Ohio Gov. John Kasich has a favorite saying these days: “Did you hear about the revolution that’s coming to Ohio? Folks, this is huge.”

Half of Ohio is sitting on the Utica play, a shale rock formation that is speculated to be the location for the next surge in U.S. oil and natural gas production, according to a report by the Independent Petroleum Association of America (IPAA). The play’s potential not only has Kasich excited; it’s creating optimism among geologists, operators and investors.

According to the IPAA report, technological advancements in drilling are allowing the once-elusive resources of the Utica to be accessible to oil and gas companies. In short, a productive Utica could become a game-changer for Ohio’s troubled economy and stagnant employment.

Most of the Utica formation, which is found a few thousand feet below the Marcellus shale, extends eastward and covers a large portion of Pennsylvania, New York and West Virginia. The oil-rich portion of the shale, known as the Point Pleasant formation, is located in eastern Ohio, and that area alone could spud 6,000 to 8,000 jobs, according to the IPAA. The Wall Street Journal recently

reported that a steel plant was built in Youngstown, Ohio, to meet the demands of the oil and gas industry. The IPAA contends that this is indicative of the potential job growth in the state.

Many industry experts compare the Utica’s geology to that of the Eagle Ford play in Texas. Since 2008, the Eagle Ford has accounted for 12,601 jobs, added \$2.9 billion in total economic output and provided more than \$111 million in government revenues. If the prospects of the Utica prove to be as lucrative, the impact on jobs, economic growth and government revenues will be tremendous, according to the IPAA.

Because the Utica is in such an early stage of development, companies, at this point analysts and investors can only speculate about the future. However, what the experts are saying merits consideration:

The Ohio Geological Survey calculates a Utica/Point Pleasant recoverable reserve potential of 1.96 billion to 8.2 billion barrels of oil equivalent for the state.

Aubrey McClendon, chief executive of Chesapeake Energy Corp., projects 25 billion barrels of oil, gas and natural gas liquids, calling the Utica “one of our biggest discoveries in U.S. history.”

McClendon also thinks that during the next few decades 25,000 wells will be drilled in the Utica. That’s a \$200-billion investment, he said.

Chesapeake has already acquired 1.25 million acres above the Utica Shale formation in eastern Ohio during the last 18

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / SEPTEMBER 1, 2011	
Gas Hub Name	Current Price
Carthage, TX	4.05
Katy Hub, TX	4.10
Waha Hub, TX	4.11
Henry Hub, LA	4.18
Perryville, LA	4.11
Houston Ship Channel	4.09
Agua Dulce TX	4.67
Opal Hub, Wyo.	4.05
Blance Hub, NM	4.04
Cheyenne Hub, Wyo.	4.04
Chicago Hub	4.28
Ellisburg NE Hub	4.38
New York Hub	4.40
AECO , Alberta	3.94

Source: Bloomberg

months. McClendon estimates that the acreage will be worth \$15- to \$20-billion in increased value to the company.

John Walker, president and chief executive of EV Energy Partners, told the IPAA that the Utica “has the promise to be America’s next big shale play.” Walker also emphasized “the thousands of jobs that we will directly and indirectly create” in Ohio.

In a recent report, Morgan Stanley analysts projected that the play has the potential to be on par with leading North American liquids-rich targets.

Brad Hillyer, a lawyer who represents oil and gas interests in Ohio, predicts, “This will be the biggest economic boom ever to hit the eastern Ohio area -- no question about it.”

Tom Tugend, deputy chief of the Ohio Division of Mineral Resources Management, thinks that the Utica in Ohio is on a similar track to the Marcellus in Pennsylvania: “In Ohio, we think we’re probably where Pennsylvania was in 2007 in drilling activity. Enthusiasm is building.”

John Pinkerton, Range Resources chairman, has called the Utica a “triple play. A very significant advantage we’ll have in developing the Upper Devonian and Utica is that we’ll be drilling where we’ve been drilling Marcellus wells. We’ve already incurred the cost for acreage, roads, surface location, water management, gas lines and compression. Therefore, the incremental costs to develop the Upper Devonian and Utica will be reduced by approximately one-

third versus developing these zones on a stand-alone basis,” he said.

Because the Utica lies beneath the Marcellus, much of the infrastructure that a company builds prior to drilling is already in place, the report states.

According to the IPAA report, because of Ohio’s industrial heritage a lot of people have the background and skills needed to operate wells, and therefore the labor market is in place.

Chesapeake’s McClendon describes the new Utica shale discoveries as “potential transformative events not only for this area but I think for the country as well,” adding the Utica is “pretty much the most ideal place in America for a new play.”

– Mike Madere

Estimates For GHG Emissions From Shale Production ‘Not Credible’

Estimates used by the U.S. Environmental Protection Agency (EPA) and others for greenhouse-gas (GHG) emissions from hydraulically fractured shale-gas wells are “dramatically” overstated and “not credible,” according to a new report by IHS Cambridge Energy Research Associates (IHS CERA).

The emission estimates are based on assumptions that do not reflect current industry practice and should be completely reevaluated, it says.

The IHS CERA analysis looks directly at the claim that constructing shale-gas wells emits large amounts of natural gas (methane). This is of particular concern to the EPA and others since methane molecules are said to have 25 times the impact on GHGs as carbon-dioxide (CO₂) molecules.

“Methane emissions have become a very important and controversial issue given their potency as a greenhouse gas,” said Mary Barcella, report co-author and IHS CERA director of North American

natural gas. “Unfortunately, such emissions are not being measured.

“Estimates are being used that are not supported by data, do not reflect current industry practice and would be unreliable to use as a base for decision-making,” Barcella said.

The EPA’s basic 2010 estimate is founded on only four data points – Wyoming, New Mexico, Texas and Oklahoma – and therefore provides “an incorrect assumption,” the Colorado-based research and consulting firm says.

Further, the EPA estimates were based on two workshop presentations describing methane captured during “green” completions – operations designed to capture as much methane as possible. The EPA assumed that (1) similar levels of methane were produced at every other well in the U.S.; and (2) that those emissions went completely uncaptured. Such assumptions do not conform to current industry practices, the report says.

Operators using “green” completion techniques use surge vessels, tanks and separators, as well as rapid connection to a gathering line, to reduce the amount of gas emitted to the atmosphere after flowback fluids are purged from a fracked well.

Assuming all natural gas from wells that were not completed “green” winds up in the atmosphere is a “fundamental error that ignores the need for drillers to be safe and capture the value of gas coming from the well,” IHS CERA says.

“The assumption that all methane recovered from these sample wells would otherwise have been flared or vented is questionable at best, given that common industry practice is to capture gas for sale as soon as it is technically feasible,” IHS CERA director and report co-author Surya Rajan said. “Gas that cannot be sold is generally flared rather than vented for safety reasons. If the methane emissions at wells were as high as some methodologies assume, you would have

extremely hazardous conditions at the well site that neither regulators nor industry would permit.”

Another Key Mischaracterization

The IHS CERA study also challenges a controversial paper published earlier this year in the journal *Climatic Change Letters* by Robert Howarth, a Cornell University ecologist and passionate anti-fracking activist.

The Cornell article assumes that wells in flowback contain methane in quantities equal to their post-completion daily production, IHS CERA says. The flowback phase is the part of production when fluids injected into a well flow back out ahead of the tapped gas.

“The Howarth estimates assume that daily methane emissions throughout the flowback period actually exceed the wells’ [initial production] at completion.

NJ Governor Vetoes Fracing Ban

New Jersey Gov. Chris Christie vetoed legislation that would have banned producers from utilizing hydraulic fracturing in their operations in the state. Instead, Christie opted for a one-year ban on the practice to draft regulations to ensure fracing is done safely in the state.

“We commend Gov. Christie for his conditional veto of a permanent ban on

This is a fundamental error, since the gas stream builds up slowly during flowback,” the IHS CERA analysis reads.

“Compounding this error is the assumption that *all* flowback methane is vented, when industry practice is to capture and market as much as possible, flaring much of the rest. Vented emissions of the magnitudes estimated by Howarth would be extremely dangerous and subject to ignition. The simple fact that fires are rare in all gas-producing areas suggests that this analysis grossly overestimates the quantities of methane that are leaking uncontrolled into the atmosphere at the well site.”

Translation: neither the EPA nor the Howarth estimates of methane emissions pass any test of reasonableness, IHS CERA says.

The volume of natural gas vented or flared typically represents a small per-

centage of total gas production each year. But since even relatively minute amounts of gas emissions can have an enormous environmental impact, it is critical to develop better data on the amount of gas vented versus flared during well completions, IHS CERA says.

“Given the rapid growth of unconventional production, rigorous analysis of these effects is important,” the report states. “Such an analysis must be based on facts and clear understanding of industry practices.

“Recent estimates of the GHG emissions from drilling and completion of unconventional gas wells do not meet this standard. The EPA would do better to rely on a new, more appropriate data-driven methodology.”

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– Kristie Sotolongo

NEWS & TRENDS

Inergy Midstream Files For IPO

Inergy Midstream LLC filed a registration statement with the U.S. Securities and Exchange Commission for an initial public offering on the New York Stock Exchange under the symbol “NRGM.”

Prior to the IPO, the company will be re-incorporated as an MLP under the name Inergy Midstream LP.

Though the size of the proposed IPO has not been released, the company

will allow New Jersey and the rest of the country to continue to benefit from the vast economic, environmental and energy security contributions that natural gas has to offer,” Tom Amontree, executive vice president of America’s Natural Gas Alliance, said in a news release.

stated in the filing that it intends to use the proceeds to repay debt from its revolving credit facility. Morgan Stanley and Barclays Capital are the lead underwriters for the IPO.

Atlas, DCP Sign Long-Term NGL Agreements

Atlas Pipeline Partners LP (NYSE: APL) signed agreements to sell NGL production from each of its processing facilities in Oklahoma and Texas to DCP

Midstream LLC’s DCP NGL Services LLC subsidiary.

The 15-year contracts are based on Mont Belvieu prices and will become ef-

fective based on the expiration of Atlas’ existing NGL sales agreements.

Step toe & Johnson... (continued from page 1)

standards. However, the pipeline had not been tested since the 1950s because regulations did not require it.

"A jury would easily find that a company has an obligation to test and monitor its pipelines. Just because they were in compliance with these federal minimum standards doesn't insulate them at all for liability from an accident. You really have to go above and beyond those standards sometimes to ensure the safety of the public," she said.

Price stated that even when companies work to maintain their pipelines, they leave themselves open to potential accidents and lawsuits if this maintenance wasn't done quickly enough.

Although UGI Corp. was inspecting leaks and was in the process of replacing cast-iron piping in a natural gas pipeline in Allentown, Pa., the company still experienced an explosion on the pipeline earlier this year. The cause was due to deterioration in the 83-year-old pipeline.

She noted that both federal agencies and the public are questioning the timeliness of the repairs and the inspections, especially given the history of the pipeline despite it meeting minimum standards.

Price said that between 1925 and 1976 there were two significant pipeline explosions in Allentown. There were another two explosions in Allentown between 1976 and 1992. "In 1992, the company was told that miles of cast-iron pipeline would need to be replaced due to corrosion," she said.

Unfortunately, the replacement of this pipeline seemingly didn't come fast enough as between 1992 and 2010 there were six explosions. Each of these accidents was caused by deteriorating pipe or excavator/contractor error in the up-grading/inspection process.

"The company did replace cast iron pipe and checked for leaks, but whether or not they acted quickly enough to replace these pipelines will be a huge issues in the court cases involving these accidents," Price said.

Equally as important to pipeline operators as preventative measures to avoid accidents is a preparation in case of these incidents. Last year, an explosion from Pacific Gas & Electric's natural gas pipeline in San Bruno, Calif., was found to be the result of a defective weld in the pipe. This flaw was not discovered partially because records indicated that the pipe was of one type when it was another type that arguably could not withstand the pressure of the line.

In addition, the National Transportation Safety Board found that Pacific Gas & Electric's 911 call to emergency personnel in response to the explosion was delayed 16 minutes because workers were trying to interpret the low pressure indicators and alarms.

"Companies should have crisis management plans in place for all facilities. You need to conduct a hazard assessment by looking at your operations and seeing where you're at risk. Train your local emergency responders and have your own emergency response team in place. Determine how your communications are going to be handled both internally and externally. Know in advance what regulatory agencies are to be notified, and designate who within your company will handle dealing with the agencies," Price advised.

These preparations should also include plans for scene, witness and evidence preservation. In some instances, regulatory agencies may take control of evidence at the site. This is not always

the case, and it is the responsibility of the operator to maintain evidence and gather witness testimony, Price said.

"You need to understand that you may be dealing with these issues independently. If that's the case you need to understand that you may subsequently end up in litigation, and you may have a duty to preserve all of this evidence and do non-destructive testing on it. Witness testimony and any data recorded need to be preserved. If the operator is in charge of the scene and does something to tamper with, change or alter physical evidence, it can be held responsible for that in subsequent litigation," she said.

In addition to preparing for any accidents and maintaining the pipeline's standards, companies must also monitor their rights-of-way (ROW) for encroachments that also cause safety concerns, according to Price.

"It is important to be continuously vigilant in maintaining your pipeline by monitoring your ROWs for obstructions or things that may interfere with the safe operation of your line and take appropriate legal action to correct any issues," Price said.

These obstructions may include structures being built too close to the pipelines or even over the pipelines that can obstruct the operator from being able to properly maintain them.

"In many instances, you can file legal causes of action after requesting that landowners correct the problem. If they refuse there are legal remedies available to you and your companies to force these landowners off your ROWs to ensure the safety of your pipeline," she said.

– Frank Nieto

Planned Maintenance Of Qatargas LNG Trains Increase European Gas Prices

Qatargas announced it will take down its Qatargas LNG trains 5, 6 and 7 for scheduled maintenance at separate times throughout the fall from mid-September to early November. In addition, Qatargas 3 and 4 inlet receiving facilities will also be taken down for maintenance in the fall.

Each of these trains has a capacity of 7.8 million tons per year. The announcement caused gas prices in Europe to increase as it is expected that LNG supplies will tighten through the next few months.

“Qatargas operates a rolling program of planned maintenance at its facilities. These necessary, planned and safe shut-

downs are coordinated with all parties of our operations, shipping and customers as part of our annual planning exercises. There will be no impact on our existing customer portfolio,” a company spokesperson told *Reuters*.

Barclays Capital... (continued from page 1)

below \$2.50/MMBtu to prompt significant shut-ins,” he said.

For this reason, Zenker thinks that the most significant floor for gas prices stems from the demand side and not the supply side. When gas prices fall below \$5/MMBtu, gas-fired power plants become financially competitive with coal-fired plants. “The resulting displacement of coal-fired plants results in a boost to gas demand. As gas prices slide lower still, more coal units are displaced, boosting gas demand even further,” he said.

This increase in demand can be observed in the weekly natural gas storage injection figure, which if it falls short of analyst expectations can be reflective of an increased share of the power load by gas-fired plants.

“The gas price floor is created by the displacement of coal units in the eastern interconnect power market. This region alone has provided essentially all the coal displacement needed to balance the gas market. If there were substantial supply growth from current levels, coal displacement would be needed in the Midwest and West to balance the gas market,” Zenker said.

Although it may make economic sense for an operator to displace coal-fired plants with gas-fired plants, there are factors that cause coal-fired plants to not be displaced by gas-fired plants. The biggest factor is that during high demand periods all coal and gas-fired units are operating.

Thus taking this and other factors, such as coal supply costs and coal-fired units that cannot be displaced, Barclays Capital estimates that there are enough opportunities for operators in the Eastern United States to increase gas demand by approximately 3.1 billion cubic feet per day at \$4/MMBtu through coal displacements.

“Enough gas demand appears at the \$4/MMBtu level to stabilize prices around that level, given current gas market supply and demand. That is, the market does not need the demand boost caused by gas prices at \$3.50/MMBtu. Market traders tend to discount short-term price elasticity, in our experience, and they could send prices lower. Yet although prices could stay below \$4/MMBtu temporarily, we would be surprised if such a level lasted for more than a month,” according to the report.

Gas prices have also been supported from falling below \$4/MMBtu on a long-term basis because of demand increases from the weather, which kept storage inventories lower than expected in the winter and has kept storage injections lower than anticipated this summer.

RESIN PRICES – MARKET UPDATE – SEPTEMBER 2, 2011					
TOTAL OFFERS: 14,796,960 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
PP Homopolymer - Inj	3,017,472	0.82	0.90	0.83	0.87
LLDPE - Film	2,763,036	0.66	0.78	0.65	0.69
HDPE - Blow Mold	2,328,576	0.64	0.75	0.63	0.67
HDPE - Inj	2,170,944	0.69	0.75	0.65	0.69
PP Copolymer - Inj	1,185,000	0.87	0.92	0.85	0.89
LDPE - Film	875,564	0.68	0.90	0.74	0.78
LLDPE - Inj	760,000	0.77	0.77	0.68	0.72
LDPE - Inj	468,184	0.77	0.80	0.71	0.75
HMWPE - Film	468,184	0.65	0.74	0.66	0.70
GPPS	380,000	0.91	0.91	0.85	0.90
HIPS	380,000	0.99	0.99	0.93	0.98

Source: Plastics Exchange – www.theplasticsexchange.com

Taking both coal displacement opportunities and increased demand from the weather into account, Barclays Capital anticipates natural gas in storage to end the injection season at 3.71 trillion cubic feet.

“Note that as summer turns to fall, the volumetric potential for switching grows, as the amount of spare gas capacity balloons with softening power loads. Storage injections thus have a greater chance of landing below consensus. Thus, not only is the \$4/MMBtu market fundamentally supported by demand, but we think there are other headline factors that will keep gas prices from falling below recent prompt month prices,” Zenker said.

– Frank Nieto

SK Global To Build \$2.4B Petrochemical Plant In Singapore

SK Global Chemical Co. of South Korea is set to begin construction of a \$2.4 billion petrochemical plant in Singapore on Jurong Island. The facility will have a ca-

capacity of 4 million tons per year with 2.6 million tons of this capacity for jet fuel and LPG. Much of the rest of the capacity will be geared toward making refined

petrochemical products in China. The plant will serve as the company's production base in Southeast Asia when it comes online in 2014.

Encana Begins Process To Divest Producing Assets In Fort Worth Basin

Encana Corp.'s (NYSE: ECA) Encana Oil & Gas (USA) Inc. subsidiary began the process to divest its natural gas producing assets in the Fort Worth basin with Scotia Waterous (USA) Inc. being retained as advisor to assist in the process.

"The initiation of the process to sell Encana's North Texas assets is a continuation of the company's ongoing divestiture program, which is well under way and is targeting net divestitures of between \$1 billion and \$2 billion for 2011. Encana continuously looks for opportunities to manage its portfolio of producing assets and improve the long-term value creation capacity of its vast resource portfolio. These north Texas assets are high-quality, relatively mature producing properties that hold strong potential for future development. The as-

sets currently produce about 125 million cubic feet equivalent per day (MMcfe/d) and include the associated processing and pipeline facilities on about 52,000 net acres of land in the Fort Worth Basin. We would expect this divestiture to be completed in late 2011 or early 2012," said Jeff Wojahn, Encana's executive vice president and president, USA Division.

"We acquired our core position in the Barnett Shale play in 2004 as a result of a corporate acquisition that was focused on building a major land and production position in the U.S. Rockies. Alongside developing this strong asset, over the years we built a suite of high-growth, early-life resource plays in the Mid-Continent, led by about 295,000 net acres of land in the Haynesville Shale play, where our production is now more than 500 MMcfe/d.

In East Texas, our production is about 250 MMcfe/d and our 240,000 net acres hold strong growth potential. Our Mid-Continent resource play teams and operations, based in Dallas, will continue to be a leading contributor to Encana's long-term growth strategy," Wojahn said.

In addition, the company is also in the process of divesting midstream and producing assets in the U.S. and Canada that it deems to no longer fit with its development plans. Encana is also seeking to secure investments from third-parties to increase the value recognition of its resource potential on its undeveloped lands. Proceeds from these agreements would be used to supplement cash flow generation and strengthen the company's balance sheet, providing financial flexibility going into 2012.

Reliance, BP Form JV To Source, Market Gas In India

Reliance Industries Ltd. (RIL) and BP announced the completion of BP's acquisition of a 30% stake in 21 oil and gas production sharing contracts (PSCs) that Reliance operates in India, including the producing KG D6 block. This step will commence the planned alliance that will operate across the gas value chain in India, from exploration and production to distribution and marketing.

The completion of the deal delivers one of the largest ever foreign direct investments into India. The two companies will also form a 50:50 joint venture for the sourcing and marketing of gas in India, which will also accelerate the

creation of infrastructure for receiving, transporting and marketing natural gas.

Mukesh Ambani, chairman and managing director, Reliance Industries, said, "The alliance with BP will boost our efforts to realize the true potential of India's hydrocarbon reserves. The globally renowned expertise of BP and the in-depth domestic experience of Reliance make for a formidable alliance that will deliver unparalleled value for the country in its pursuit of energy security."

"This is the beginning of what we expect to be a long and successful working partnership with Reliance, building on the strengths of each company," said Bob

Dudley, BP group chief executive. "This major investment is directly aligned with our strategy of creating long-term value by forming alliances with strong national partners, gaining material positions in significant hydrocarbon basins and increasing our exposure to growing energy markets."

BP will pay RIL an aggregate consideration of \$7.2 billion subject to completion adjustments for the interests to be acquired in the 21 production sharing contracts. Further performance payments of up to \$1.8 billion could be paid based on exploration success that results in development of commercial discoveries.

UBS Names Pierce To Head Midstream, MLP Investment Segment

Robert Pierce will join UBS AG as managing director and Americas head of its midstream and MLP investment banking in November. He joins UBS from Barclays Capital, where he served as a managing director in the firm's midstream and MLP division.

This hiring is the latest in a series for UBS as the bank has been rebuilding its

energy group following the departure of Stephen Trauber, who joined Citigroup in 2010. Earlier this year, UBS hired Tom Langford as global head of energy investment banking followed by the hiring of Jane Dabney and Steven Escaler as executive directors of its energy group.

"The rebuild of our energy banking team is among our most significant op-

portunities, both in the Americas and globally. We continue to make strategic investments in the Americas as we develop and further expand our coverage footprint. The Midstream and MLP space is a critical one for our Energy banking effort and one where we believe our distribution platform gives us a unique position," the company said in a news release.

PIPELINES & TECHNOLOGY

FEIS Affirms Environmental Integrity Of Keystone XL Project

TransCanada Corp. (NYSE: TRTP.TO) announced that the Final Environmental Impact Statement (FEIS) for the Keystone XL crude oil pipeline has reaffirmed the environmental integrity of the project.

This is the third Environmental Impact Statement that the U.S. Department of State has issued on Keystone XL since the review process began in 2008. "The Final Environmental Impact Statement reaffirms the findings of the two previous environmental impact statements that the Keystone XL pipeline will have no significant impact on the environment," said Russ Girling, TransCanada's president and chief executive. "Today's Final Environmental Impact statement continues to demonstrate the focus on safety and the environment that has gone into the development of this critical North American pipeline."

The environmental review process for Keystone XL (culminating in the FEIS) has been the most exhaustive and detailed review for a cross-border pipeline that has ever been undertaken by of the Department of State. "We know how hard the Department of State has worked to make this review process as transparent and thorough as possible, including consulting with more than 10 other federal agencies," Girling added.

"We appreciate their continued commitment to completing their review by the end of this year."

The nine-volume FEIS is more than 1,000 pages in length. Keystone XL has gone through an exhaustive 36-month review, including numerous public meetings, multiple public comment periods, submittal and review of thousands of pages of information and responses to hundreds of detailed questions.

In TransCanada's preliminary review of the FEIS' findings, the company notes that:

- The analysis of potential impacts associated with the project suggests that there would be no significant impacts to most resources along the proposed project corridor.
- Incorporating the 57 Project-specific Special Conditions developed by PHMSA would result in a project that would have a degree of safety greater than any typically constructed domestic oil pipeline under current regulation.
- The proposed route is the shortest and would disturb the least amount of land and water bodies resulting in reduced environmental impacts. Alternative routes that were considered to avoid the Ogallala Aquifer and the

Nebraska Sandhills are not preferable environmentally or otherwise.

- Oil sands derived crude oil does not have unique characteristics that would suggest the potential for higher corrosion rates during pipeline

Now that the FEIS has been issued, a 90-day comment period begins to determine if Keystone XL is in the national interest of the United States.

"Support for Keystone XL continues to grow because the public, opinion leaders and elected officials can see the clear benefits that this pipeline will deliver to Americans," added Girling. "The fundamental issue is energy security. Through the Keystone system, the U.S. can secure access to a stable and reliable supply of oil from Canada, where we protect human rights and the environment, or it can import more higher-priced oil from nations that do not share America's interests or values."

In addition to energy security, Keystone XL will create massive and much needed economic benefits to the states it crosses and the United States as a whole. The project will be financed entirely through the private sector without one penny of government subsidy. During operations, TransCanada will contribute more than \$5 billion in property taxes

to the communities Keystone XL will pass through. In total, the Keystone XL project is expected to create \$20 billion of economic stimulus to the U.S. during construction.

The benefits of Keystone XL are not limited, however, to the states where the pipeline will be located. From pipe man-

ufactured in Arkansas to pump motors made in Ohio, workers in almost every state in the United States benefit from the project and the ongoing development of Canada's oil sands. Within days of receiving regulatory approval for Keystone XL, TransCanada will begin to put 20,000 Americans to work to construct the

project. In addition to these direct jobs, independent studies calculate that the construction of Keystone XL will create an additional 118,000 indirect and spin-off jobs for local businesses.

If construction of the pipeline begins early in 2012, Keystone XL is expected to be operational in 2013.

Plains Midstream Canada Receives Approval To Restart Rainbow Pipeline

Plains Midstream Canada, a subsidiary of Plains All American Pipeline, received approval from Canada's Energy Resources Conservation Board to restart the Rainbow crude pipeline that was shutdown following a spill of approxi-

mately 28,000 barrels in April near Peace River, Alberta.

The agency restricted the pipeline's operating pressure to 75% of its total pressure, but no official restart date was provided. The spill is believed to have

been caused by a crack and resulted in Plains working with the agency to do an extensive evaluation of the pipeline before obtaining this approval.

PHMSA Considering Changes To Pipeline Regulations

The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) is considering whether changes are needed to regulations governing the safety of gas transmission pipelines, and the agency is seeking public comments about prospective changes.

In particular, PHMSA is considering whether integrity management (IM) requirements should be changed, including adding more prescriptive language in some areas, and whether other issues

related to system integrity should be addressed by strengthening or expanding non-IM requirements.

Among the specific issues PHMSA is considering concerning IM requirements is whether the definition of a high-consequence area (HCA) should be revised, and whether additional restrictions should be placed on the use of specific pipeline assessment methods. With respect to non-IM requirements, PHMSA is considering whether revised requirements are needed on new construction

or existing pipelines concerning mainline valves, including valve spacing and installation of remotely operated or automatically operated valves; whether requirements for corrosion control of steel pipelines should be strengthened; and whether new regulations are needed to govern the safety of gathering lines and underground gas storage facilities.

PHMSA will accept public comments until Dec. 2, 2011. For more information, contact Mike Israni at 202-366-4571.

NGL PRICES

Conway Ethane Falls To Lowest Price In Nearly A Year

The theoretical natural gas liquid (NGL) barrel price at Mont Belvieu rose for the second straight week while the Conway theoretical barrel price fell for the second consecutive week. The price decreases at Conway are largely attributable to a lack of transportation out of the hub because of two Enterprise Products Partners NGL pipelines being down.

Ethane was the lone NGL to drop in value at both hubs the week of Aug. 24 as the price fell 1% to 69¢ per gallon (gal) at

Mont Belvieu. This small decrease was the first time since mid-July that ethane prices showed stability at the hub. The same cannot be said of its Conway counterpart, which experienced a 10% drop in price to 36¢/gal. This was the lowest price at the hub since it was 33¢/gal the week of Sept. 1, 2010, due to the combination of the Enterprise pipeline outages and the limited ethane market in the Mid-Continent.

The ethane market continues to be supported by an extremely high operating

capacity rate from U.S. ethylene crackers, but there will be headwinds during the next month on that front as two crackers were scheduled to begin maintenance on Sept. 1. Formosa Petrochemical Corp.'s Point Comfort (TX) #2 cracker and its 1.8 billion pounds per year (lb/yr) capacity will be down for up to 40 days while ExxonMobil's 2.175 lb/year facility in Baton Rouge, La. is set to be offline for 45 days.

Conway isobutane had the second-largest price decrease at either hub as it fell

6% to \$1.90/gal as that market corrected itself following the large gain posted last week, which saw isobutane overtake C₅₊ as the most valuable NGL at the hub. The Mont Belvieu price increased 1% to \$2.08/gal, its highest price since the week of July 27, as it benefitted from higher crude prices.

While Mont Belvieu isobutane benefitted from the increase in crude prices, it was C₅₊ that had the greatest improvement for the week at both hubs as the Conway price rose 4% to \$2.04/gal and the Mont Belvieu increased 3% to \$2.34/gal. The price at Texas was the highest since it was \$2.46/gal the week of July 27, and the Kansas price was the highest at the hub since it was \$2.22/gal the same week.

Butane prices also improved with crude prices, but its ratio to WTI dropped from the previous week as the market corrected last week's high ratio. The Mont Belvieu price rose 2% to \$1.89/gal, also the highest price at the hub since the week of July 27 when it was \$1.93/gal. The Conway price rose slightly to \$1.61/gal, which was also the highest price at the hub since the week of July 27 when it was \$1.69/gal.

An increase in propane stock levels caused prices to remain relatively flat at both hubs with the Conway price down very slightly to \$1.45/gal and the Mont Belvieu price increasing 1% to \$1.54/gal.

– Frank Nieto

Data Provided by Intercontinental Exchange. Individual product prices in cents per gallon. NGL barrel in \$/42 gallons | Source: Frank Nieto

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
Aug. 24 - 30 '11	68.78	154.14	189.36	208.14	233.78	\$60.30
Aug. 17 - 23 '11	69.35	153.18	185.28	205.98	226.95	\$59.53
Aug. 10 - 16 '11	67.92	151.60	182.42	201.00	223.26	\$58.59
Aug. 3 - 9 '11	76.06	150.98	182.72	207.23	227.25	\$60.23
July '11	79.50	152.47	187.05	203.97	246.50	\$62.38
June '11	74.07	151.89	181.94	198.54	235.24	\$60.30
2nd Qtr '11	75.14	149.59	186.75	202.07	248.23	\$61.42
1st Qtr '11	63.74	137.32	175.07	186.15	228.46	\$55.82
4th Qtr '10	59.07	126.07	162.01	168.24	198.89	\$50.59
3rd Qtr '10	44.99	106.98	138.23	143.25	171.45	\$42.37
Aug. 25 - 31, '10	48.12	106.58	133.56	136.42	168.50	\$42.18
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
Aug. 24 - 30 '11	36.32	144.76	161.44	190.00	204.20	\$50.59
Aug. 17 - 23 '11	40.40	144.78	160.90	202.00	196.08	\$51.00
Aug. 10 - 16 '11	40.60	143.54	156.06	192.50	201.50	\$50.75
Aug. 3 - 9 '11	47.73	140.70	160.20	184.90	190.25	\$50.83
July '11	55.57	143.17	169.35	193.79	227.52	\$55.66
June '11	51.43	141.46	164.86	183.38	223.52	\$53.99
2nd Qtr '11	52.63	139.38	170.76	192.47	236.00	\$55.34
1st Qtr '11	46.30	128.26	164.69	186.06	225.91	\$51.80
4th Qtr '10	47.01	120.80	157.16	161.69	193.86	\$47.80
3rd Qtr '10	31.16	101.46	132.39	141.93	163.91	\$39.04
Aug. 25 - 31, '10	34.20	102.86	130.33	140.17	161.06	\$39.36

FRAC SPREAD

Conway Ethane, Isobutane Lone Margins To Fall For Second Straight Week

For the second straight week, the lone frac spread margins to experience decreases were Conway ethane and isobutane as prices continued to decline for those two natural gas liquids (NGL) because of limited capacity out of the region.

The margin for Conway ethane dropped 22% from the previous week while Conway isobutane fell 7% from last week as two NGL pipelines owned by Enterprise Products Partners in the area being offline.

These margin decreases would have been worse except that natural gas feedstock prices also fell 4% at both hubs.

The Conway price was down to \$3.81 per million Btu (MMBtu) while the Mont Belvieu price fell to \$3.82/MMBtu. Barclays Capital stated that the bearish nature of the natural gas markets this week can largely be attributed to Hurricane Irene, which caused massive power outages along the East Coast.

“In some locations, the restoration of power may take a week, suggesting that power demand, and therefore, gas consumption, will creep back up only with the recovery of power service. The impact will be a muted week of gas consumption in one of the highest power-

demand periods of the year,” according to the firm’s *Natural Gas Weekly Kaleidoscope* for the week of Aug. 30.

The largest frac spread margin increase at both Conway and Mont Belvieu was for C₅₊, which reestablished itself as the most profitable NGL at both locations due to increases in crude prices. The Conway margin rose 6% from last week while the Mont Belvieu margin was up 5% from the previous week.

Butane had the second-largest increase in margin at both hubs with a 2% improvement at Conway and a 4% improvement at Mont Belvieu. These in-

creases were also largely attributed to price increases that were supported by improved crude prices.

The large decrease in ethane margins at Conway caused the theoretical NGL barrel at the hub to fall 1% for the week as it was down to \$50.59 per barrel (/bbl). However, the hub's margin improved very slightly to \$36.67/bbl. The theoretical barrel price at Mont Belvieu gained 1% to \$60.30/bbl with a 3% improvement in margin to \$46.34/bbl.

As stated earlier, C₅₊ regained its status as the most profitable NGL to make at both hubs this week at \$1.62 per gallon (/gal) at Conway and \$1.91/gal at Mont Belvieu. This was followed, in order, by isobutane at \$1.52/gal at Conway and \$1.70/gal at Mont Belvieu; butane at \$1.22/gal at Conway and \$1.50/gal at Mont Belvieu; propane at \$1.10/gal at Conway and \$1.19/gal at Mont Belvieu; and ethane at 11¢/gal at Conway and 44¢/gal at Mont Belvieu.

Natural gas in storage for the week of Aug. 26, the most recent data available from the Energy Information Administration, increased 55 billion cubic feet to 2.961 trillion cubic feet (Tcf) from 2.906 Tcf. This was 4% below the storage level of 3.098 Tcf reported last year at the same time and 2% below the five-year average of 3.021 Tcf.

The storage injection next week should be greater due to a combination of power outages along the East Coast as well as cooler than normal weather for early September expected throughout much of the eastern United States. The National Weather Service's forecast for the coming week includes a cold front that will extend from the Midwest through the Gulf Coast and along the East Coast. The forecast also includes warmer than normal weather throughout the Western U.S. from the West Coast, throughout the Southwest and parts of the Midwest.

– Frank Nieto

Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%. Fuel, frac, transport costs not included. Conway gas based on NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.

Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation. Source: Frank Nieto

Current Frac Spread (Cents/Gal)				
September 2, 2011	Conway	Change from Start of Week	Mont Belvieu	Start of Week
Ethane	36.32		68.78	
Shrink	25.26		25.33	
Margin	11.06	-22.18%	43.45	0.83%
Propane	144.76		154.14	
Shrink	34.90		34.99	
Margin	109.86	1.16%	119.15	1.92%
Normal Butane	161.44		189.36	
Shrink	39.51		39.61	
Margin	121.93	1.66%	149.75	3.84%
Iso-Butane	190.00		208.14	
Shrink	37.95		38.05	
Margin	152.05	-6.52%	170.09	2.13%
Pentane+	204.20		233.78	
Shrink	42.25		42.36	
Margin	161.95	6.35%	191.42	4.58%
NGL \$/Bbl	50.59	-0.81%	60.30	1.28%
Shrink	13.92		13.95	
Margin	36.67	0.27%	46.34	2.82%
Gas (\$/mmBtu)	3.81	-3.54%	3.82	-3.54%
Gross Bbl Margin (in cents/gal)	85.21	0.23%	108.44	2.73%
NGL Value in \$/mmBtu				
Ethane	2.00	-10.10%	3.79	-0.82%
Propane	5.03	-0.01%	5.35	0.63%
Normal Butane	1.74	0.34%	2.05	2.20%
Iso-Butane	1.18	-5.94%	1.30	1.05%
Pentane+	2.63	4.14%	3.01	3.01%
Total Barrel Value in \$/mmBtu	12.58	-1.48%	15.49	0.96%
Margin	8.77	-0.56%	11.67	2.53%

SNAPSHOT

Texas Gas Transmission Delivers Gas From Gulf, Fayetteville Shale Into Midwest, Northeast

The Texas Gas Transmission pipeline is one of the largest pipelines owned and operated by Boardwalk Pipeline Partners with 5,609 miles of pipe and 55 compressor stations capable of transporting up to 2.8 billion cubic feet per day (Bcf/d) of natural gas from the Gulf Coast and Fayetteville shale into the Midwest.

According to the company, the pipeline originates in the Louisiana Gulf Coast and east Texas and runs through

Louisiana, Arkansas, Mississippi, Tennessee, Kentucky, Indiana and into Ohio and Illinois. In addition, the pipeline has access to off-system markets in the Northeast through interconnections with third-party pipelines.

The system's direct markets include Memphis, Louisville, Cincinnati, Dayton, Evansville and Indianapolis. The principal sources of Texas Gas Transmission's supplies are offshore Louisiana; Per-

ryville, La.; the Henry hub; Agua Dulce; Carthage, Texas; the Fayetteville shale; east Texas; north and south Louisiana and Mississippi; and gas from Canada through an interconnection with Midwestern Gas Transmission Co. at Whitesville, Kentucky.

According to Hart Energy's Mapping & Data Services, the system's top transportation customer is Southwestern Energy Services with 965,000 dekath-

erms per day (Dth/d). This is followed by ProLiance Energy LLC with 258,000 Dth/d; Memphis Light, Gas & Water with 207,000 Dth/d; Gulf South Pipeline Co. LP with 200,000 Dth/d; Petrohawk Energy Corp. with 200,000 Dth/d; Chesapeake Energy Marketing with 150,000 Dth/d; Atmos Energy Corp. with 141,000 Dth/d; Louisville Gas & Electric with 117,000 Dth/d; National Energy & Trade LP with

108,000 Dth/d; and ProLiance Energy LLC again with 108,000 Dth/d.

The pipeline has a total storage capacity of 55 Bcf with its top storage customer being ProLiance Energy LLC with 16.19 Bcf. This is followed by ProLiance Energy LLC again with 14.16 Bcf; Memphis Light, Gas & Water with 7.82 Bcf; Atmos Energy Corp. with 4.67 Bcf; and Louisville Gas & Electric Co. with 4.55 Bcf.

The top receipt point for the pipeline, according to Hart Energy's Mapping & Data Services, is Gulf South -- Lonewa followed by Lula -- Mainline. The top delivery point for the system is Lebanon -- Texas Eastern followed by Lebanon -- Dominion.

– Frank Nieto

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